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NPIC/TDS/E-603/68  
8 January 1968

MEMORANDUM FOR: Chief, Development Staff, TDS

SUBJECT: Progress Report on "Hole-In-Screen" Experiments.

1. Your memo request of 6 October 1967 for "Rear Projection Viewer Experiments" continues as an active project in the Exploratory Development Laboratory.

2. The "hole-in-screen" concept requires that by some unspecified means a selected small area of the projected image be viewed directly by means of some optical aid such as magnifier or microscope. The concept implies that the screen could literally have a hole cut in it, eliminating the diffusing medium at that small area.

3. That this concept is basically sound was demonstrated to three members of your staff on 24 October 1967. They were [redacted] [redacted] The demonstration consisted of projecting resolution targets from a 2x2 slide projector, alternately to a small screen of Polacoat screen material, to a 7X tube magnifier and to a low magnification binocular microscope. All agreed that eliminating the screen's granularity improved the examination of fine detail. The standard AF resolving power chart being projected could be read one to two elements finer by direct viewing than when reading on the screen itself with a tube magnifier.

4. The result of that demonstration was an agreement that a [redacted] Viewer would be procured by EDL and that it be modified as necessary to demonstrate a practical application of this concept. Such a viewer has now been borrowed from DIAAP-9. EDL will investigate the several most promising methods of application and produce a prototype of one or more of them for demonstration to you.

TDS

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